

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

In the Matter of:

Virgin Islands Water and Power Authority,
St. Croix, U.S. Virgin Islands

Respondent

In a proceeding under Section 113(a) of the
Clean Air Act, 42 U.S.C. § 7413(a)

COMPLIANCE ORDER

CAA-02-2011-1008

Statutory Authority

The United States Environmental Protection Agency (EPA) Region 2 Director of the Division of Enforcement & Compliance Assistance (Director) issues this COMPLIANCE ORDER (Order), pursuant to the Clean Air Act, 42 U.S.C. § 7401 et seq. (the Act or CAA), at 42 U.S.C. § 7413(a) Section 113(a), to the Virgin Islands Water and Power Authority (VIWAPA or Respondent), to establish a schedule for compliance with respect to the operation and testing of specified equipment at the Richmond Estate Generating Facility (Estate Richmond Facility), located in St. Croix, U.S. Virgin Islands. The authority to find violations and issue this Order has been delegated to the Director from the EPA Administrator through the Regional Administrator.

Statutory, Regulatory and Permitting Background

1. Section 101(b)(1) of the Act provides that the Clean Air Act is designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population.
2. Section 111(b)(1)(A) of the Act requires the Administrator to publish a list of categories of stationary sources of air pollution that, in the judgment of the Administrator, causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.
3. Section 113(a)(3) of the Act authorizes EPA to, among other things, issue compliance orders to address violations of, among other things, Title I of the Act, including a violation of any regulation promulgated or permit issued under Title I of the Act.
4. Section 114(a)(1) of the Act authorizes EPA to require owners and operators of emission sources to provide specific information regarding their facilities, establish and maintain records, make reports, sample emission points, and to install, use and maintain such monitoring equipment or methods in order to determine whether any person is in violation of the Act.

National Ambient Air Quality Standards

5. Pursuant to Section 107(d) of the Act, each state is required to designate those areas within its boundaries where the air quality is better or worse than the national ambient air quality standards (NAAQS) for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. An area that meets the NAAQS for a particular pollutant is termed an "attainment"

area with respect to such pollutant. An area that does not meet the NAAQS for a particular pollutant is termed a "nonattainment" area with respect to such pollutant.

6. Section 107(d)(1)(A)(iii) provides that an area that cannot be classified as either "attainment" or "nonattainment" with respect to a particular pollutant due to insufficient data is termed "unclassifiable" with respect to such pollutant.
7. Section 108(a)(1) of the Act requires the Administrator of EPA to identify and publish air quality criteria for each air pollutant, emissions of which may endanger public health or welfare, and the presence of which results from numerous or diverse mobile or stationary sources. For each such "criteria" pollutant, Section 109 of the Act, 42 U.S.C. § 7409, requires EPA to promulgate NAAQS requisite to protect the public health and welfare.
8. Section 109(a) of the Act requires the EPA Administrator to promulgate regulations establishing primary and secondary NAAQS for those air pollutants (criteria pollutants) for which air quality criteria has been issued pursuant to Section 108 of the Act.
9. Pursuant to Section 109(b)(1), the primary NAAQS must contain an adequate margin of safety to protect the public health.
10. Pursuant to Section 109(b)(2), the secondary NAAQS must protect the public welfare from any known or anticipated adverse effects associated with air pollutants in the ambient air.

11. 40 C.F.R. § 50.2(b) provides that: (1) the primary NAAQS define levels of air quality which the Administrator judges necessary, with an adequate margin of safety, to protect the public health; and (2) the secondary NAAQS define levels of air quality which the Administrator judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
12. Pursuant to Sections 108 and 109 of the Act, EPA identified NO_x, CO, SO₂, Particulate Matter (PM) and Volatile Organic Compounds (VOC) for which it promulgated a primary and secondary NAAQS. See 40 C.F.R. Part 50.
13. At all times relevant, St. Croix, U.S. Virgin Islands, the area in which the Facility is located, has been classified as an attainment area for NO_x, CO, SO₂, PM and VOC. See 40 C.F.R. § 81.356.

The Prevention of Significant Deterioration Program

14. Under the authority of Sections 110, 114, 161, 165 and 166 of the Act, EPA promulgated the Prevention of Significant Deterioration (PSD) regulations to implement Part C of Title I of the Act, 42 U.S.C. §§ 7470-7492, entitled "Prevention of Significant Deterioration of Air Quality" provisions in the CAA.
15. Part C of Title I of the Act sets forth requirements for the prevention of significant deterioration of air quality in those areas designated as either attainment or unclassifiable for purposes of meeting the NAAQS standards. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the

consequences of such a decision and after public participation in the decision making process.

16. To obtain a PSD permit, an applicant must, among other things, (1) conduct an ambient air quality analysis to demonstrate that its emissions would not violate either the NAAQS or the PSD increments and (2) apply BACT. See Part C of Title I of the Act, 40 C.F.R. § 52.21, and NSR Workshop Manual, October 1990 Draft.
17. EPA initially promulgated the PSD regulations on June 19, 1978 (43 Fed. Reg. 26402 (June 19, 1978)) and promulgated significant amendments to the PSD regulations on August 7, 1980 (45 Fed. Reg. 52741), and December 31, 2002 (67 Fed. Reg. 80186).
18. Section 165(a)(1) and (4) of the Act, among other things, prohibits the construction of a "major emitting facility" in an area designated as attainment or unclassifiable unless a permit has been issued for such proposed facility that conforms to the requirements of Part C of Title I of the Act and the facility is subject to BACT for each pollutant subject to regulation under the Act that is emitted from, or which results from, the facility.
19. Section 169(1) of the Act defines "major emitting facility" as sources in specific categories (category sources) with the potential to emit 100 tons per year or more of any air pollutant and any other source (non-category sources) with the potential to emit 250 tons per year or more of any air pollutant.
20. In accordance with Sections 110(a) and 161 of the Act, states shall adopt and submit to EPA for approval, into the state implementation plan (SIP), a plan

that contains emission limits and such other measures, as may be necessary, as determined under regulations promulgated under Subpart C of Title I of the Act, to prevent significant deterioration of air quality in each region (or portion thereof) designated pursuant to Section 107 of the Act as attainment or unclassifiable. See *also* 40 C.F.R. § 52.21(a).

21. Pursuant to 40 C.F.R. § 52.21(a), the PSD regulations are applicable in any state, as provided in 40 C.F.R. Part 52, Subparts B-DDD, that has been disapproved with respect to its PSD plan. In addition, pursuant to 40 C.F.R. § 52.21(a), the PSD regulations are incorporated by reference into the applicable implementation plan for various States (Commonwealths or Territories), including the U.S. Virgin Islands.
22. On June 19, 1978,¹ pursuant to Section 110 of the Act, EPA disapproved the U.S. Virgin Islands' PSD implementation plan submission. See 40 C.F.R. § 52.2729. Thereafter, in accordance with 40 C.F.R. § 52.21(a)(1), the provisions of 40 C.F.R. § 52.21, except paragraph (a)(1), were incorporated and made part of the applicable Air Quality Implementation Plan (AQIP) for the U.S. Virgin Islands. See 40 C.F.R. § 52.2729.
23. EPA has not delegated implementation of the PSD regulations to the Virgin Islands Department of Planning and Natural Resources (VIDPNR), and therefore, EPA administers the federal PSD program in the U.S. Virgin Islands.

¹ Most recently amended on December 24, 2003 (68 Fed.Reg. 74491).

Applicable PSD Regulations

24. 40 C.F.R. § 52.21(b)(1)(i)(a) and (b) defines "major stationary source" as any stationary source that emits, or has the potential to emit, 100 tpy or more of any pollutant subject to regulation under the Act for any source category listed in 40 C.F.R. § 52.21(b)(1)(i)(a) and any stationary source which emits or has the potential to emit 250 tpy or more of any air pollutant subject to regulation under the Act at a non listed source category.
25. 40 C.F.R. § 52.21(b)(1)(i)(c) defines "major stationary source" as any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) of § 52.21 as a major stationary source, if the changes constitute a major stationary source by itself.
26. 40 C.F.R. § 52.21(b)(4) defines "potential to emit" as the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operation limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on type or amount of material combusted, sorted, or processed, must be treated as part of its design if the limitation or effect it would have on emissions is federally enforceable.
27. 40 C.F.R. § 52.21(b)(5) defines "stationary source" as any building, structure, facility or installation that emits or may emit any pollutant subject to regulation under the Act.
28. 40 C.F.R. § 52.21(b)(12) defines "BACT" to mean an emissions limitation based on the maximum degree of reduction for each pollutant subject to

regulation under the Act which would be emitted from any proposed major stationary source or major modification which the Administrator on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

29. 40 C.F.R. § 52.21(d) provides that no concentration of a pollutant shall exceed the concentration permitted under the primary or secondary NAAQS.
30. 40 C.F.R. § 52.21(i)(1) provides that no stationary source to which the requirements of paragraphs (j) - (r) of 40 C.F.R. § 52.21 apply shall begin actual construction without a permit that states the stationary source will meet those requirements.
31. 40 C.F.R. § 52.21(i)(2) provides that the requirements of paragraphs (j) - (r) of 40 C.F.R. § 52.21 apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Act that it would emit except as § 52.21 otherwise provides.
32. 40 C.F.R. § 52.21(i)(3) provides that the requirements of paragraphs (j) - (r) of 40 C.F.R. § 52.21 apply only to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassifiable under Section 107(d)(1)(D) or (E) of the Act.

33. Pursuant to 40 C.F.R. § 52.21(j)(2), a new major stationary source or major modification must apply BACT for each pollutant subject to regulation under the Act that it would have the potential to emit in significant amounts.
34. 40 C.F.R. § 52.21(r)(1) provides that any owner or operator who constructs or operates a source or modification not in accordance with an application submitted pursuant to the PSD regulations or with the terms of any approval to construct, or any owner or operator of a source or modification subject to the PSD regulations who commences construction after the effective date of the PSD regulations without applying for and receiving approval there under, is subject to appropriate enforcement action. See *also* 40 C.F.R. § 52.21(b)(8), (9) and (11).
35. 40 C.F.R. § 52.23 further provides that the failure to comply with any condition in a permit issued pursuant to approved or promulgated regulations for the review of, among other things, new stationary sources shall be subject to EPA enforcement action under Section 113 of the Act.

New Source Performance Standards

NSPS General Provisions

36. Pursuant to Sections 111 and 114 of the Act, EPA promulgated 40 C.F.R. Part 60 Subpart A, "New Source Performance Standards General Provisions" (NSPS General Provisions).
37. 40 C.F.R. § 60.2 defines "owner or operator" as "any person who owns, leases, operates, controls, or supervises an affected facility or stationary source of which an affected facility is part."

38. 40 C.F.R. § 60.2 defines "affected source" to mean, with reference to a stationary source, any apparatus to which a standard is applicable.
39. Pursuant to 40 C.F.R. § 60.7(f) an owner or operator subject to any NSPS regulation must maintain a file of all information required by applicable NSPS regulations in a permanent form suitable for inspection.
40. An owner or operator of an affected facility subject to NSPS Subpart GG must comply with the requirements of 40 C.F.R. Part 60 Subpart A, unless otherwise specified in NSPS Subpart GG. See 40 C.F.R. § 60.7(h).
41. Pursuant to 40 C.F.R. § 60.8(a), with exceptions not applicable in this case, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by 40 C.F.R. Part 60, and at such other times as may be required by the Administrator under Section 114 of the Act, the owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
42. Pursuant to 40 C.F.R. § 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator approves other methods.
43. Pursuant to 40 C.F.R. § 60.11(a), compliance with standards in 40 C.F.R. Part 60, other than opacity standards, shall be determined in accordance with performance tests established by 40 C.F.R. § 60.8, unless otherwise specified in the applicable standard.

NSPS Subpart GG

44. Pursuant to Sections 111 and 114 of the Act, EPA promulgated the Standards of Performance for Stationary Gas Turbines, 40 C.F.R. Part 60 Subpart GG, 40 C.F.R. §§ 60.330 - 60.335 (NSPS Subpart GG), 69 *Fed. Reg.* 41363 (July 8, 2004), as amended at 71 *Fed. Reg.* 9458 (Feb. 24, 2006).
45. Pursuant to 40 C.F.R. § 60.330(a), the provisions of NSPS Subpart GG are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.
46. Pursuant to 40 C.F.R. § 60.330(b), any facility under 40 C.F.R. § 60.330(a) which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of 40 C.F.R. Part 60, with exceptions not relevant to this case.
47. 40 C.F.R. § 60.331 defines "stationary gas turbine" as any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled.
48. Pursuant to 40 C.F.R. § 60.332(a), on and after the date on which the performance test required by 40 C.F.R. § 60.8 is completed, no owner and operator subject to the provisions of NSPS Subpart GG as specified in 40 C.F.R. § 60.332(b) – (d) shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of amounts calculated in accordance with one of the applicable formulas provided in 40 C.F.R. § 60.332(a)(1) – (4).

Title V Regulations

49. Title V of the Act aims to consolidate all applicable CAA requirements for each source into one document, a Title V Operating Permit. The Title V Operating Permit does not create requirements for a source, but rather lists applicable provisions. Pursuant to Section 502(b) of the Act, EPA promulgated 40 C.F.R. Parts 70 and 71. 57 Fed. Reg. 32250 (1992). 40 C.F.R. Part 70 provides the minimum requirements and procedures for a state Title V Operating Permit program. In the event that a state fails to adopt or effectively implement a Title V Operating Permit program, 40 C.F.R. Part 71 provides the requirements and procedures by which EPA may issue Title V Operating Permits.
50. Section 502(a) of the Act provides that after the effective date of any permit program approved or promulgated pursuant to Title V of the Act, it shall be unlawful for any person to violate any requirement of a permit issued under Title V of the Act or to operate a Title V affected source, including a major source or any other source (including an area source) subject to standards or regulations under, amount other things, Title I of the Act, except in compliance with a permit issued by a permitting authority under Title V of the Act.
51. Pursuant to Section 502(b) of the Act, EPA promulgated 40 C.F.R. Part 70, State Operating Permit Program regulations, and 40 C.F.R. Part 71, Federal Operating Permit Program regulations.

52. Section 502(d) of the Act required each state to develop and submit to the Administrator a permit program meeting the requirements of Title V of the Act.
53. Pursuant to Section 502(e) of the Act, EPA maintains its authority to enforce permits issued by a state.
54. Section 503(a) of the Act provides that any source specified in Section 502(a) of the Act shall become subject to a permit program and shall be required to have a permit to operate.
55. Section 503(b)(2) of the Act provides that the regulations promulgated pursuant to Section 502(b) of the Act shall include requirements that the permittee periodically (but no less frequently than annually) certify that the facility is in compliance with any applicable requirements of the Title V permit.
56. Section 504(a) of the Act directs that each Title V permit include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and any such conditions as are necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable SIP.
57. Title 12, Chapter 9, of the U.S. Virgin Islands Laws and Rules and Regulations on Air Pollution Control (VR&R), entitled "Permits," includes that Virgin Islands' SIP required Construction and Operating Permit Program, which the Virgin Islands developed and submitted and which EPA approved into the SIP pursuant to Section 110 of the Act making it federally enforceable. See 40 C.F.R. § 52.1605.

Findings of Facts

General

58. Respondent owns and operates four (4) oil-fired gas turbines, Units 16, 17, 19 and 20 at the Estate Richmond Facility, located in St. Croix, U.S. Virgin Islands.
59. Respondent owns and operates two (2) unfired heat recovery and steam generating (HRSG) unit (HRSG Units 21 and 24) at the Estate Richmond Facility.
60. HRSG Unit 21 is used in conjunction with Unit 17 at the Estate Richmond Facility.
61. HRSG Unit 24 is used in conjunction with Units 16 and 20 at the Estate Richmond Facility.
62. Respondent constructed Unit 16 in 1981.
63. Respondent constructed Unit 17 in 1988.
64. Respondent constructed Unit 19 in 1994.
65. Respondent constructed Unit 20 in 1994.

Title V Permit

66. In December 2003, VIDPNR issued Respondent a Title V Operating Permit, STX-TV-002-03, for the Estate Richmond Facility (Estate Richmond Title V Permit).
67. On July 2, 2008 VIWAPA submitted a renewal application for the Estate Richmond Title V Permit.

68. On September 15, 2008, VIDPNR issued a letter to VIWAPA stating that VIDPNR had reviewed the Estate Richmond Title V permit application and found the application to be incomplete. In the letter VIDPNR requested that VIWAPA submit, in addition to other items, a compliance schedule indicating when the Estate Richmond Facility would be in compliance with all applicable requirements.
69. On October 30, 2008, VIWAPA provided a compliance schedule to VIDPNR indicating staggered days for the Estate Richmond Facility units to achieve compliance. VIWAPA indicated that all the Estate Richmond Facility units would be in compliance with applicable requirements by September 30, 2010.²
70. On April 8, 2009, VIDPNR issued a letter to VIWAPA stating that the deficiencies expressed in VIDPNR's September 15, 2008 letter to VIWAPA had been addressed and therefore, it deemed the Estate Richmond title V permit application administratively complete.
71. Condition 3.2.3 of the Estate Richmond Title V Permit, among other things, requires Respondent to use water injection at all times to control NO_x emissions at Unit 16, except when operating at low loads (less than 35% capacity).
72. Condition 3.2.9 of the Estate Richmond Title V Permit, among other things, requires Respondent to use water injection at all times to control NO_x

² In the compliance schedule VIWAPA submitted to VIDPNR, VIWAPA indicated that if the Section 325 waiver request was not granted, VIWAPA would be in compliance with CEMS and COMS requirements within 15 (fifteen) months of EPA's decision being final.

emissions at Unit 17, except when operating at low loads (less than 35% capacity).

73. Condition 3.2.15 of the Estate Richmond Title V Permit, among other things, requires Respondent to use water injection at all times to control NO_x emissions at Unit 19, except when operating at low loads (less than 25% capacity).
74. Condition 3.2.21 of the Estate Richmond Title V Permit, among other things, requires Respondent to use water injection at all times to control NO_x emissions at Unit 20 (less than 25% capacity).

PSD Permits

75. On December 28, 1992, EPA issued Respondent a PSD permit, pursuant to Section 165(a) of the Act and 40 C.F.R. § 52.21, for the operation of Units 16, 17 and HRSG Unit 21 at the Estate Richmond Facility.
76. On September 3, 1993, EPA issued Respondent a PSD permit, pursuant to Section 165(a) of the Act and 40 C.F.R. § 52.21, which was modified on October 26, 1994, for the operation of Unit 19 at the Estate Richmond Facility.
77. On March 1, 1994, EPA issued Respondent a PSD permit, pursuant to Section 165(a) of the Act and 40 C.F.R. § 52.21, which was modified on November 17, 1994 for the operation of Unit 20 at the Estate Richmond Facility.
78. EPA consolidated all of the Estate Richmond Facility PSD permits into one permit on November 27, 2000 and modified it on June 18, 2007 (Consolidated PSD Permit).

PSD Permit).

79. Enclosure II, Condition I.A.3.a of the Consolidated PSD Permit requires Respondent to use water injection at all times at Unit 16, except during periods of startup and shutdown where the load is less than 35% capacity.
80. Enclosure II, Condition I.B.3.a of the Consolidated PSD Permit requires Respondent to use water injection at all times at Unit 17, except during periods of startup and shutdown where the load is less than 35% capacity.
81. Enclosure II, Condition I.C.3.a of the Consolidated PSD Permit requires Respondent to use water injection at all times at Unit 19, except during periods of startup and shutdown where the load is less than 25% capacity.
82. Enclosure II, Condition I.D.3.a of the Consolidated PSD Permit requires Respondent to use water injection at all times at Unit 20, except during periods of startup and shutdown where the load is less than 25% capacity.

Section 114 Requests and Responses

83. On April 10, 2009, pursuant to Section 114 of the Act, EPA issued VIWAPA a request for information (April 2009 114 Request).
84. On June 9 and June 30, 2009, Respondent provided EPA with its responses (June 2009 Response) to the April 2009 114 Request.
85. On March 17, 2010, pursuant to Section 114 of the Act, EPA issued VIWAPA a request for information (March 2010 114 Request).
86. On May 14, 2010, VIWAPA provided EPA with its responses (May 2010 Response) to the March 2010 Section 114 Request.
87. In Respondent's June 2009 and May 2010 Responses, it provided among

- (a) the water-to-fuel ratio as available for the water injection systems;
- (b) the amount of water consumed (gallons) on an hourly basis to control NO_x emissions;
- (c) all periods of time when the water and/or steam injection system was not in operation;
- (d) the date(s) and time(s) identifying each period during which the continuous monitoring system was inoperative (not including zero and span checks) and the nature of the system repair(s) or adjustment(s);
- (e) the quality assurance/quality control operations and procedures in place for the water/fuel ratio monitoring systems.
- (f) the quality assurance plan and the calibration and maintenance program for the monitors;
- (g) the quality data availability for all opacity monitors, and the quality data availability for all gaseous monitors;
- (h) the various daily operating loads and the times and duration of operation, including, but not limited to the time and duration of operation at low loads;
- (i) any exceedance of emission limitations measured and recorded by continuous emissions monitors;
- (j) records of any daily visual opacity inspections including, but not limited to logs;
- (k) the duration of visible emission exceedances and the corrective actions taken when visible emissions exceedances occurred; and
- (l) copies of quarterly PSD reports from October 1, 2005 to June 30, 2010, for the Estate Richmond Facility.

Conclusions of Law and Findings of Violation

- 88. From the Findings of Fact set forth above, EPA finds that Respondent is a person within the meaning of Section 302(e) of the Act.
- 89. From the Findings of Fact set forth above, EPA finds that Respondent is the owner and/or operator of Units 16, 17, 19, 20 and HRSG Units 21 and 24 at the Estate Richmond Facility.
- 90. From the Findings of Fact set forth above, EPA finds that Units 16, 17, 19 and 20 are stationary gas turbines subject to NSPS Subpart GG Regulations. See 40 C.F.R. § 60.330.

91. From the Findings of Fact set forth above, EPA finds that Units 16, 17, 19 and 20 are oil-fired gas turbines subject to PSD regulations. See 40 C.F.R. § 52.21.
92. From the Findings of Fact set forth above, EPA finds from at least October 1, 2005 to January 1, 2011, Respondent either did not operate the water injection system or did not maintain the required water to fuel ratio, established during the initial performance test, to control NO_x emissions from Unit 16 for a period of at least 1185 hours, in violation of the Consolidated PSD Permit and the Estate Richmond Title V Permit, which incorporates PSD regulations and the Facility's PSD Permit conditions as applicable requirements.
93. From the Findings of Fact set forth above, EPA finds that the from at least October 1, 2005 to January 1, 2011, Respondent either did not operate the water injection system or did not maintain the required water to fuel ratio, established during the initial performance test, to control NO_x emissions from Unit 17 for a period of at least 5,006 hours, in violation of the Consolidated PSD Permit and the Estate Richmond Title V Permit, which incorporates PSD regulations and the Facility's PSD Permit conditions as applicable requirements.
94. From the Findings of Fact set forth above, EPA finds that from at least October 1, 2005 to January 1, 2011, Respondent either did not operate the water injection system or did not maintain the required water to fuel ratio, established during the initial performance test, to control NO_x emissions from

Unit 19 for a period of at least 676 hours, in violation of the Consolidated PSD Permit and the Estate Richmond Title V Permit, which incorporates PSD regulations and the Facility's PSD Permit conditions as applicable requirements.

95. From the Findings of Fact set forth above, EPA finds that from at least October 1, 2005 to January 1, 2011, Respondent either did not operate the water injection system or did not maintain the required water to fuel ratio, established during the initial performance test, to control NO_x emissions from Unit 20, for a at least 1,572 hours, in violation of the Consolidated PSD Permit and the Estate Richmond Title V Permit, which incorporates PSD regulations and the Facility's PSD Permit conditions as applicable requirements.

Order

In concurrence with the Findings of Fact and Conclusions of Law above, and pursuant to Section 113(a)(3) of the Act, IT IS DETERMINED AND ORDERED that:

I

The provisions of this Order shall apply to Respondent and to its officers, agents, servants, employees, successors and to all persons, firms and corporations acting pursuant to, through or for Respondent.

II

Within sixty (60) days of the effective date of this Order, VIWAPA shall complete a third-party system-wide evaluation of the water injection system of each PSD permitted turbine. VIWAPA's third-party shall perform the evaluation to identify and to determine the causes of any system failure, to determine the integrity of the water

injection system, to determine why operators continually switch water injection pumps and why some pump switches result in excess emissions being measured at the CEMS and not the alternative monitoring system (AMS, also known as the "Bailey System" or the "CT System").

III

Within sixty (60) days of completion of the third-party system-wide evaluation, VIWAPA shall implement a capital improvement program to replace all damaged and/or deteriorated equipment relating to the water injection systems for all PSD permitted turbines and to correct any equipment, hardware, software, or operational deficiencies revealed during the audits.

IV

Within sixty (60) days of completion of the third-party system-wide evaluation, VIWAPA shall ensure that water flow monitors shall be located as close as possible to the turbine injection points to minimize false readings caused by leaks downstream, clogged filters, or unforeseen problems.

V

Within sixty (60) days of the effective date of the Order, VIWAPA shall install, operate and maintain a feed water pretreatment system to remove minerals that lead to scaling and clogging of the water injection nozzles.

VI

Within one hundred twenty (120) days of the effective date of the Order, VIWAPA shall develop and implement a preventative operation and maintenance plan (including standard operation procedures) to ensure the proper and continual operation of the

standard operation procedures) to ensure the proper and continual operation of the water injection system. Such a plan shall include, but is not limited to schedules for periodic pump maintenance, replacing filters, identifying and repairing leaks (temporary and permanent), and schedules and procedures for calibrations of water and fuel monitors. VIWAPA shall ensure that good air pollution control practices are utilized at all times during the operation of the water injection system.

VII

Within one hundred twenty (120) days of the effective date of this Order, VIWAPA shall implement a spare parts inventory program at the Facility. The spare parts inventory program shall contain an inventory of various replacement parts for routine maintenance. VIWAPA shall maintain lists/logs of the average frequency at which hardware components are required to be replaced and the dates of replacement of such components. VIWAPA shall assess the minimum quantity of each replacement component that may be maintained based upon evaluation, at the very least, of the lead and the delivery time for procurement and the frequency at which each component is required to be replaced in the equipment. VIWAPA shall design the spare parts inventory to ensure minimum water injection system downtime in the event of a water injection system failure.

VIII

Within sixty (60) days of the completion of the third-party system-wide evaluation of the water injection systems, VIWAPA shall submit a report that includes a timetable to correct all problems identified as well as the preventative and operations maintenance plan to EPA for review, comment and approval.

IX

Within one hundred twenty (120) days of the effective date of this Order, VIWAPA shall ensure that at least one technical person or engineer be available on site at the Facility at all times who is trained and experienced in operating and maintaining the water injection system.

X

All reports and notices required by this Order shall be submitted to:

Kenneth Eng
Chief, Air Compliance Branch
U.S. Environmental Protection Agency, Region 2
290 Broadway, Floor 21
New York, New York 10007

Copies of the reports and notices are also required to be submitted to;

John Kushwara
Chief, Monitoring and Assessment Branch,
U.S. Environmental Protection Agency, Region 2
Edison Environmental Center
2890 Woodbridge Ave.
Edison, NJ 08837

Business Confidentiality

Respondent may assert a business confidentiality claim covering part or all of the information this Order requires only to the extent and in the manner described in 40 C.F.R. § 2.203. EPA will disclose information submitted under a confidentiality claim only as provided in 40 C.F.R. Part 2, Subpart B. See 41 Fed. Reg. 36,902 (1976). If Respondent does not assert a confidentiality claim, EPA may make the information available to the public without further notice to Respondent.

Enforcement

Section 113(a)(3) of the Act authorizes EPA to take any of the following actions in response to Respondent's violation(s) of the Act:

- issue an administrative penalty order, for penalties up to \$25,000 per day pursuant to Section 113(d) of the Act and adjust the maximum penalty provided by the Act up to \$27,500 per day for each violation that occurs from January 30, 1997 through March 14, 2004, \$32,500 per day for each violation that occurs from March 15, 2004 through January 12, 2009, and \$37,500 per day for each violation that occurs after January 12, 2009, in accordance with the Debt Collection Improvement Act, 31 U.S.C. 3701 et seq. (DCIA), and 40 C.F.R. Part 19, promulgated pursuant to the DCIA;
- issue an order requiring such person to comply with a requirement of the Act with which EPA has determined the respondent to be in violation; and
- bring a civil action pursuant to Section 113(b) of the Act for injunctive relief and/or civil penalties, in accordance with Section 113(d) of the Act, and in accordance with the DCIA and Part 19.

Failure to comply with this Order may result in an administrative or civil action for appropriate relief as provided in Section 113 of the Act. EPA retains full authority to enforce the requirements of the Act, for all periods of non-compliance including those covered in this Order, and nothing in this Order shall be construed to limit that authority. Furthermore, the United States may seek fines and/or imprisonment of any party who knowingly violates the Act or an Order issued pursuant to Section 113 of the Act. Upon conviction, any facility owned by such party may be declared ineligible for federal contracts, grants and loans. Section 306; 40 C.F.R. Part 15; and Executive Order 11738.

Penalty Assessment Criteria

Section 113(e)(1) of the Act states that if a penalty is assessed pursuant to Sections 113 or 304(a) of the Act, the Administrator or the court, as appropriate, shall, in

determining the amount of the penalty to be assessed, take into consideration the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence (including evidence other than the applicable test method), payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, the seriousness of the violation, and other factors as justice may require.

Section 113(e)(2) of the Act allows the Administrator or the court, as appropriate, to assess a penalty for each day of violation. In accordance with Section 113(e)(2) of the Act, EPA will consider a violation to continue from the date the violation began until the date Respondent establishes that it has achieved continuous compliance. If Respondent proves that there was an intermittent day of compliance or that the violation was not continuous in nature, then EPA will reduce the penalty accordingly.

Effective Date and Opportunity for Conference

Pursuant to Section 113(a)(4) of the Act, Respondent may request a conference with EPA concerning the violation(s) alleged in this Order. This conference will enable Respondent to present evidence bearing on the finding of the violation(s), on the nature of the violation(s), and on any efforts it may have taken or it proposes to take to achieve compliance. Respondent may arrange to have legal counsel.

Respondent's request for a conference must be confirmed in writing within ten (10) days of receipt of this Order. If the requested conference is held, the Order shall become effective ten (10) days after the conference is held. The conference must be

become effective ten (10) days after the conference is held. The conference must be held within thirty (30) days of receipt of this Order, unless EPA approves a later conference date.

If Respondent does not request a meeting within ten (10) days of receipt of this Order, the Order shall become effective ten (10) days from its receipt. The request for a conference, or other inquiries concerning this Order, should be made in writing to:

Marie T. Quintin, Esq.
Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency – Region 2
290 Broadway – 16th Floor
New York, New York 10007-1866
(212) 637-3243

Notwithstanding the effective date of this Order and opportunity for conference, Respondent must comply with all applicable requirements of the Act.

Issued: 5/9, 2011



Dore LaPosta, Director
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency - Region 2

To: Hugo Hodge, Jr., Executive Director
Virgin Islands Water and Power Authority
P.O. Box 1450 St. Thomas
Virgin Islands, USA 00804-1450

cc: Director, Division of Environmental Protection
Virgin Islands Department of Planning and Natural Resources
Cyril E. King Airport, 2nd Floor
St. Thomas, U.S. VI 00802

Kelvin, L. Vidale
Legal Counsel, Division of Environmental Protection
Virgin Islands Department of Planning and Natural Resources
#45 Mars Hill, Frederiksted
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